AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 1, line 18, with the following rewritten paragraph:

--Independently from the way in which the compressor's exit pressure has changed, therefore either in the "waste gate" type of solution, or in the solution in which the inclination of the turbine's stator blade (variable geometry turbocharger), said adjustments are normally carried out through the linear sliding, or nearly linear, of a [[pilot]] pivot point.--

Please replace the paragraph beginning at page 3, line 9, with the following rewritten paragraph:

--In fact the signal transmitted by the engine's electronic control unit inflects an electric valve which, by acting on a constant pressure tank, adjusts the pressure or depression values that must reach the actuator which, consequently, controls the [[pilot]] pivot point. Said system, although relatively economical, carries the following disadvantages:

- it is imprecise due to the plurality of levers and of the non negligible relevance of the internal frictions which also determine a hysteresis of the same system;
- it is slow, due to the pneumatic activation, therefore, when there are sudden changes in the engine's regimen, the fluid dynamic transients constrain the system's response capacity;

- it requires a dedicated pneumatic system with connectors, tank and regulation electro-valve which change with the change of the engine on which said actuator is applied.--

Please replace the paragraph beginning at page 4, line 3, with the following rewritten paragraph:

--Said REA type actuator therefore:

- requires an electric motor with reduction group which limits its speed and increases the exit torque to make it appropriate for controlling the [[pilot]] pivot point;
- it needs a plurality of control connections which require specific adjustments for its use with different engines;
- it moves into the "hot spot" the electronics related to a series of activities which, in other types of actuators, are normally carried out by the engine's electronic control unit;
- it is rather complex and therefore costly.--

Please replace the paragraph beginning at page 4, line 15, with the following rewritten paragraph:

--The aim of the present invention is the creation of a device with which one can operate on the regulation of the turbocharger of internal combustion engines, therefore a device with which to command the [[pilot]] pivot point. Said device must be structurally simple, efficient and easily applicable to engines which differ. Another aim of the invention is that of achieving a device which reduces the complexity of the motor mechanism as a consequence of its introduction. Another aim of

the invention is that of achieving a device with a linear movement, or one that is nearly so, of its control element that must be connected to the [[pilot]] pivot point so as to simplify its installation and the transmission of the forces and the movement to the said [[pilot]] pivot point.--

Please replace the paragraph beginning at page 5, line 3, with the following rewritten paragraph:

--The invention which has allowed us to reach these results is obtained by the combination of:

a) an electromechanical group comprising a solenoid that generates a magnetic field, provided with a ferromagnetic nucleus sliding inside it, combined with a rod capable of interacting with the [[pilot]] pivot point of the turbocharger, furthermore supplied with a sensing system for the position of the ferromagnetic nucleus inside it;

b) an electronic circuit which: - on the way it receives at least the signal from the electronic control unit of the engine and the retroaction signal or the feedback signal connected to the position of the ferromagnetic nucleus of the solenoid; - on the way out it supplies the electric current connected to said entry signals and with which it feeds the solenoid generating said magnetic field.--

Please replace the paragraph beginning at page 5, line 25, with the following rewritten paragraph:

--Another advantage derives from the fact that the organ which is intended for the actuation of the [pilot]] pivot point, that is the rod combined with the ferromagnetic nucleus sliding inside the solenoid, during its operation is subject only to axial sliding, so that it is easy to connect to the [[pilot]] pivot point and, at the same time, it facilitates the connection of the mechanical structure of the solenoid on the turbocharger piloted by it or on another part of the engine.--

Please replace the paragraph beginning at page 7, line 19, with the following rewritten paragraph:

--The actuator, the object of the present invention, through which the [[pilot]] pivot point of the turbocharger is activated, is made up of a combination of an electromechanical group and of an electronic regulation and control circuit. The electromechanical group, schematized in figure 4, comprises the solenoid 1 provided with a ferromagnetic nucleus 2, normally created with a ferromagnetic material having minimal hysteresis.--

Please replace the paragraph beginning at page 7, line 25, with the following rewritten paragraph:

--Said ferromagnetic nucleus , slides within the [[said]] solenoid 1 and is furnished with a rod 3 that interacts with the [[pilot]] pivot point 4 of the turbocharger 5.--

Please replace the paragraph beginning at page 8, line 3, with the following rewritten paragraph:

--The ferromagnetic nucleus 2, in the solution exemplified in the drawing, through lever 6 activates the position sensor 7, intended to register and notify its position. In said [[solution]] position sensor 7 is of the resistive type and operates, for example, as shown in fig. 2. For instance, lever 6 of fig. 4 supports electric contacts 20, capablel of interacting with resistance 10, normally of the linear type. At each instant, the electric contacts 20 define therefore the position occupied by the ferromagnetic nucleus 2 in solenoid 1. In another embodiment the position sensor 7 is made with a capacitive group. In still another [[solution]] position sensor 7, that is the device through which the control of the ferromagnetic nucleus 2 in solenoid 1 is carried out, operates through a group which measures the inductance of the same solenoid 1 which changes on the variation of the amount of penetration inside it of the ferromagnetic nucleus 2.--

Please replace the paragraph beginning at page 8, line 16, with the following rewritten paragraph:

--Different position sensors 7 can therefore be adopted to furnish, in any case, an exit feedback signal connected to the position of the ferromagnetic nucleus 2 with respect to solenoid 1. The reference position, therefore the starting point of the ferromagnetic nucleus 2 in the embodiment exemplified in fig. 4, is constituted by the stop plate 12, against which ferromagnetic

nucleus 2 is pushed by the compression spring 8, wrapped around rod 3.--

Please replace the paragraph beginning at page 8, line 22, with the following rewritten paragraph:

--The electronic circuit, shown in figures 1 and 3, receives on the way in, at least the signal from the engine's electronic control unit, or by another equivalent system, and through position sensor 7 the retroaction or feedback signal, connected with the position of the ferromagnetic nucleus 2 of solenoid 1. On the way out, said electronic circuit, emits the electric current sent to solenoid 1, tightly connected to the two entry signals. The regulation and control of said electric current permits the regulation and control of the magnetic field produced by solenoid 1 and therefore the position of ferromagnetic nucleus 2.--

Please replace the paragraph beginning at page 9, line 6, with the following rewritten paragraph:

--At each issue of electric current sent to solenoid 1, therefore corresponds a position of the ferromagnetic nucleus 2 and a correspondent state of activation of lever 21, or of other regulation means typical of the turbocharger 5, terminating in [[pilot]] pivot point 4.--

Please replace the paragraph beginning at page 9, line 10, with the following rewritten paragraph:

--The electromechanical group is provided with the appropriate means 11 for its anchoring on the turbocharger 5 or on the engine to which the [[said]] turbocharger is applied. Means that can in any case vary abundantly at the change of the engine on which the invention is applied. Said means, normally, are of the flange type as exemplified in figure 4.--

Please replace the paragraph beginning at page 9, line 21, with the following rewritten paragraph:

--Said solenoid 1 operates as a magnetic inductor and is combined with the ferromagnetic nucleus 2 with which rod 3 is joined and through which [[pilot]] pivot point 4 is activated.--

Please replace the paragraph beginning at page 9, line 24, with the following rewritten paragraph:

--Said ferromagnetic nucleus 2, in the exemplified electromechanical solution, is also joined to lever 6, which activates position sensor 7. Said lever 6, at its free end, is normally equipped with high conductivity electric contact means 20, which rub on resistor 10, normally of the linear type, so that on the sliding of the ferromagnetic nucleus 2, said contact 20 will slide in a guided way on resistor 10, allowing the collection of a portion of the signal present at the ends of said resistor 10, with which it signals, to the programmed electronic control group, the exact position of the ferromagnetic nucleus 2 in solenoid 1. This allows to control instant by instant, for

example, the sliding of the ferromagnetic nucleus 2 which is required to cancel the eventual hysteresis effects.--

Please replace the paragraph beginning at page 10, line 10, with the following rewritten paragraph:

--The electronic circuit with which the current in solenoid 1 is controlled and adjusted, and therefore the movement of [[pilot]] pivot point 4, at the variation of the operational conditions of the engine, is constituted of two parts, as exemplified in the figures 1 and 3. A first control part 14 which is constituted, for example, by a programmable micro controller, and a second part 15 of power with which solenoid 1 is fed with an intensity of current that can even reach various amperes.--

Please replace the paragraph beginning at page 10, line 17, with the following rewritten paragraph:

--The control part 14 carries at least two entrances from which it receives in one, the signal of the engine's electronic control unit, defining or in any case proportional to the operational state of the engine, in the other one, the feedback signal from the [[control]] position sensor 7, controlled by the ferromagnetic nucleus 2 sliding in solenoid 1. This last signal allows, instant by instant, to know the position of the ferromagnetic nucleus 2 in the solenoid and therefore the position of the [[pilot]] pivot point 4 of the turbocharger.--

Please replace the paragraph beginning at page 10, line 24, with the following rewritten paragraph:

--The electric circuit, in the embodiment reproduced in figure 3, is constituted therefore of a first part 14 comprising a differential amplifier unit which receives on the way in, the signal of the engine's electronic control unit and the retroaction or feedback signal amplified by amplifier 18 and originating from position sensor 7. It furthermore comprises the group 19, with which the temperature compensation is operated, so as to make the invention not influenced by the operational temperature conditions.--

Please replace the paragraph beginning at page 11, line 8, with the following rewritten paragraph:

--In the present invention, therefore, the operational state of the turbocharger is guided through an inductor solenoid electromechanical group, whose activation current is guided by the ECU type electronic control unit, or any other equivalent one, with a correction produced by position sensor 7 which indicates, instant by instant the position of the ferromagnetic nucleus 2 in solenoid 1 and therefore the position of the [[pilot]] pivot point 4.--